REMARKS

<u>Claim Objections</u>

The Examiner has objected to claims 9 and 17 stating that the claims do not conform to 37 C.F.R. § 1.126. Additionally, the Examiner has objected to these claims noting that the "original numbering of the claims should be maintained throughout prosecution." Office Action, page 7. Applicants note that the numbering of the claims was not modified by cancellation or otherwise before the Office Action. Accordingly, the basis of the objection is not understood.

Applicants have amended claim 9 to depend from claim 6 to provide antecedent basis for the recited "hardware card." Also, Applicants have cancelled claim 17 without prejudice. If the Examiner believes that any issues remain in regard to the numbering of the claims, Applicants request the Examiner to clarify the objection and to suggest corrective action (if appropriate).

<u>Rejection under 35 U.S.C. § 101</u>

The Examiner has rejected claims 1-9 under 35 U.S.C. § 101 stating that the limitation "wherein logical operations associated with steps (d)-(g) are implemented in at least one selection from the list of: hardware; and firmware" does not concretely and tangibly embody the monotonic sequence number on hardware or firmware.

Without conceding whether the rejection is proper, Applicants have deleted the limitation noted by the Examiner from claim 1 for the purpose of broadening the scope of claim 1. Applicants have not made the amendment for the purpose of patentability.

The Patent Office has recognized that computer related inventions satisfy the statutory requirements for patentable subject matter when the inventions are limited "to a practical application of the abstract idea or mathematical algorithm in the technological arts." MPEP § 2106(IV)(B)(2)(b)(ii). In regard to claims 1-9, it is undisputed that the generation of monotonic sequence numbers is a well-recognized practical application within the technological art of distributed computing. Moreover, claims 1-9 explicitly recite technology performing the practical application, namely the primary and secondary sequence number

generators. Because the subject matter of claims 1-9 is directed to a practical application and explicitly recites technology accomplishing the practical application, Applicants submit that claims 1-9 satisfy the requirements of 35 U.S.C. § 101. Applicants request the Examiner to withdraw the rejection. Additionally, because no other rejection of these claims was made in the Office Action, Applicants respectfully submit that claims 1-9 should be passed to allowance.

Rejection under 35 U.S.C. § 103(a)

Claims 10-13 and 15-19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,161,198 to Hill et al. (hereinafter Hill) in view of U.S. Patent No. 6,539,446 to Chan (hereinafter Chan).

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art cited must teach or suggest all the claim limitations. *See* M.P.E.P. § 2143. Applicants submit that the rejection does not satisfy these criteria.

Claim 10 recites, in part:

a plurality of sequence number devices, connected via a fabric, including at least a primary sequence number generator and a secondary sequence number generator;
the primary sequence number generator disposed to a receive sequence number request from an originating device and to a forward sequence number response to the secondary sequence number generator; and
the secondary sequence number generator disposed to receive the sequence number response, store the sequence number response in memory, and forward the response to the originating device.

Applicants respectfully submit that the applied references do not teach or suggest each and every limitation of claim 11. Specifically, Chan merely discloses a methodology for managing a "lock" mechanism to manage access to a shared resource in a manner that enables recovery upon damage to the lock data. *See* Abstract of Chan. Chan is not directed to sequence number generation. Accordingly, there is no teaching or suggestion of sequence number devices in Chan.

Hill discloses that an "application program operating under the control of a host processor, such as host A 502, will pass a source I/O message to its corresponding descriptor, such as host A producer descriptor 516. A message 'sequence number' for host A 502 is also passed to host A producer descriptor 516...In one embodiment of the invention, the sequence number is integrally associated with the source message." Col. 7, lines 35-45. As seen from the description of Hill, the sequence numbers are generated by software processes on the same system that uses the sequence numbers.

Accordingly, there is no teaching or suggestion of sequence number devices in Hill that receive sequence number requests from an originating device. Moreover, because the software applications of the applied references generate sequence numbers themselves, there is no necessity of communicating a request to a device to generate a sequence number. Thus, the applied references do not teach or suggest a primary sequence number generator that receives sequence number requests.

The applied references (either alone or in combination) do not teach or suggest each and every limitation of claim 10. Claims 11-13 and 15-16 depend from claim 10 and, hence, inherit all limitations of claim 10. A prima facie case of obviousness has not been established for claims 11-13 and 15-16.

Applicants have cancelled claims 17-20 and, hence, the rejection of these claims is now moot. Applicants have not cancelled these claims in view of the prior art or for the purpose of patentability. Applicants have cancelled these claims to reduce the costs associated with the presentation of new claims.

New Claims

Applicants have added new claims 21-27. The new claims are supported by, inter alia, pages 9, 10, and 13 of the original application. No new matter has been entered.

Claim 21 recites, in part:

a plurality of nodes that each comprise at least one processor and at least one sequence number device;
a fabric interconnecting said sequence number devices of said plurality of nodes;

wherein a respective application is executed on a processor of each of said plurality of nodes that uses sequence numbers issued monotonically within said plurality of nodes and said sequence number devices of said plurality of nodes comprises a primary sequence number generator and a secondary sequence number generator;

wherein each of said applications performs a function call to obtain a sequence number, said function call invoking a sequence number routine of a sequence number device that communicates a sequence number request to said primary sequence generator, said primary sequence number generator monotonically generating a sequence number in response to said request and communicating said generated sequence number to said secondary sequence number generator, said secondary sequence number generator storing said generated sequence number and forwarding said generated sequence number to said originating sequence number device, said originating sequence number device returning said generated sequence number in response to said function call.

As discussed in greater detail in regard to the rejection under 35 U.S.C. § 103(a), the applied references do not teach or suggest sending sequence number requests to a primary sequence number generator. Moreover, the applied references do not teach or suggest performing a function call to invoke a routing of a sequence number device to communicate the sequence number request. Additionally, the sequence numbers disclosed in the Hill reference do not appear to be issued monotonically within the Hill system. Instead, it appears that the sequence numbers are only monotonically issued for a particular host system to track transactions for the particular host. Accordingly, there is no coordination between the use of sequence numbers among the hosts of the Hill system.

Therefore, Applicants submit that claim 21 is patentable over the applied references. Claims 22-27 depend from claim 21 and, hence, are submitted to be patentable over the applied references.

Conclusion

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Applicants believe no fee is due with this response, other than the additional claim fees addressed in the accompanying transmittal. However, if an additional fee is due, please charge Deposit Account No. 08-2025, under Order No. 10001459-1 from which the undersigned is authorized to draw.

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as Express Mail, Airbill No. EV482736841US in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date of Deposit: May 14, 2004

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Respectfully submitted,

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